

**Policy: MP238**

**Section: Medical Benefit Policy**

**Subject: Ocular Blood Flow Tonometer**

### Applicable Lines of Business

<b>Commercial</b>	<b>X</b>	<b>CHIP</b>	<b>X</b>
<b>Medicare</b>	<b>X</b>	<b>ACA</b>	<b>X</b>
<b>Medicaid</b>	<b>X</b>		

**I. Policy:** Ocular Blood Flow Tonometer

**II. Purpose/Objective:**

To provide a policy of coverage regarding Ocular Blood Flow Tonometer

**III. Responsibility:**

- A. Medical Directors
- B. Medical Management

**IV. Required Definitions**

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

**V. Additional Definitions**

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

**Medicaid Business Segment**

Medically Necessary — A service, item, procedure, or level of care that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an illness, condition, injury or disability.

- Will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for Members of the same age

**DESCRIPTION:**

Ocular Blood Flow Tonometer measures both the pulsatile ocular blood flow and blood flow velocity both using doppler ultrasonography to monitor activity in specific blood vessels that supply the eye with blood. The device has been proposed to take the intraocular pressure (IOP) and ocular blood flow (OBF) test results together to increase the detection rate for glaucoma when compared to traditional tonometry, which measures only IOP.

**EXCLUSIONS:**

The Plan does **NOT** provide coverage for the use of Ocular Blood Flow Tonometer used in the screening, diagnosis, and monitoring of glaucoma because it is considered **experimental, investigational or unproven**. There is insufficient evidence in the peer-reviewed published medical literature to establish the effectiveness of this treatment on health outcomes when compared to established treatments or technologies.

**Medicaid Business Segment:**

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

**Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.**

**CODING ASSOCIATED WITH:**

*The following codes are included below for informational purposes and may not be all inclusive. Inclusion of a procedure or device code(s) does not constitute or imply coverage nor does it imply or guarantee provider reimbursement. Coverage is determined by the member specific benefit plan document and any applicable laws regarding coverage of specific services. Please note that per Medicare coverage rules, only specific CPT/HCPCS Codes may be covered for the Medicare Business Segment. Please consult the CMS website at [www.cms.gov](http://www.cms.gov) or the local Medicare Administrative Carrier (MAC) for more information on Medicare coverage and coding requirements*

**0198T** Measurement of ocular blood flow by repetitive intraocular pressure sampling with interpretation and report

Current Procedural Terminology (CPT®) © American Medical Association: Chicago, IL.

**Associated Key Words:** Blood Flow Analyzer (BFA)

**LINE OF BUSINESS:**

**Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.**

**REFERENCES:**

Geisinger Health Plan. Technology Assessment Triage Committee. Pulsatile Ocular Blood Flow. December 2009.

Gunvant P, Watkins RJ, Broadway DC, O'Leary DJ. Repeatability and effects of sequential measurements with POBF tonograph. *Optom Vis Sci.* 2004 Oct;81(10):794-9.

Gunvant P, Baskaran M, Vijaya L, Joseph IS, Watkins RJ, Nallapothula M, Broadway DC, O'Leary DJ. Effect of corneal parameters on measurements using the pulsatile ocular blood flow tonograph and Goldmann applanation tonometer.

Zion IB, Harris A, Siesky B, Shulman S, McCranor L, Garzosi HJ. Pulsatile ocular blood flow: relationship with flow velocities in vessels supplying the retina and choroid. *Br J Ophthalmol.* 2007 Jul;91(7):882-4.

Tonnu PA, Ho T, Sharma K, White E, Bunce C, Garway-Heath D. A comparison of four methods of tonometry: method agreement and interobserver variability. *Br J Ophthalmol.* 2005 Jul;89(7):847-50.

American Academy of Ophthalmology (AAO). Primary angle closure. Preferred Practice Pattern. San Francisco, CA: AAO; 2005.

American Academy of Ophthalmology (AAO). Primary open-angle glaucoma. Preferred Practice Pattern. San Francisco, CA: AAO; 2005.

American Academy of Ophthalmology (AAO). Primary open-angle glaucoma suspect. Preferred Practice Pattern. San Francisco, CA: AAO; 2005.

American Optometric Association (AOA). Care of the patient with open angle glaucoma. 2nd ed. St. Louis, MO: AOA; 2002.

U.S. Food and Drug Administration (FDA) 510(k). Blood flow analyzer (BFA). Summary of Safety and Effectiveness. 510(k) No. K023245. Rockville, MD: FDA. October 21, 2002. Available at: <http://www.fda.gov/cdrh/pdf2/K023245.pdf>.

Paradigm [website]. Ocular blood flow analyzer. Salt Lake City, UT. 2007. Available at: <http://www.paradigm-medical.com>. Accessed January 7, 2009.

Kuerten D, Fuest M, Walter P, et al. Association of ocular blood flow and contrast sensitivity in normal tension glaucoma. Graefes Arch Clin Exp Ophthalmol. 2021 May 21.

WuDunn D, Takusagawa HL, Sit AJ, et al. OCT Angiography for the Diagnosis of Glaucoma: A Report by the American Academy of Ophthalmology. Ophthalmology. Aug 2021; 128(8): 1222-1235.

Bayraktar S, İpek A, Takmaz T, Yildiz Tasci Y, Gezer MC. Ocular blood flow and choroidal thickness in ocular hypertension. Int Ophthalmol. 2022 May;42(5):1357-1368

This policy will be revised as necessary and reviewed no less than annually.

**Devised:** 2/10

**Revised:**

**Reviewed:** 2/11, 2/12, 2/13, 2/14, 2/15, 2/16, 2/17, 1/18, 1/19, 1/20, 1/21, 1/22, 1/23, 1/24

**CMS UM Oversight Committee Approval:** 12/23

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at <https://www.geisinger.org/health-plan/providers/ghp-clinical-policies>

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.